



RAW SEQUENCE LISTING

DATE: 02/24/2003

PATENT APPLICATION: US/09/690,885

TIME: 08:10:04

Input Set : A:\1422-319 Parent SL.txt

Output Set: N:\CRF4\02242003\I690885.raw

SEQUENCE LISTING

4 (1) GENERAL INFORMATION:

6 (i) APPLICANT: SAKAWA, HIROAKI
 7 UENO, HARUHI
 8 OCHIMA, ATSUSHI
 9 FATO, IKUNOSHIN

11 (ii) TITLE OF INVENTION: PLASMID

13 (iii) NUMBER OF SEQUENCES: 1

15 (iv) CORRESPONDENCE ADDRESS:

16 (A) ADDRESSEE: FIRCH, STEWART, KOLASCH & BIRCH, LLP
 17 (B) STREET: PO BOX 347
 18 (C) CITY: FALLS CHURCH
 19 (D) STATE: VA
 20 (E) COUNTRY: USA
 21 (F) TEL: 703-271-1100

23 (v) COMPUTER READABLE FORM:

24 (A) MEDIUM TYPE: Floppy disk
 25 (B) CHARACTER: IBM PC compatible
 26 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
 27 (D) SOFTWARE: PatentIn Release #1.0, Version #1.30

29 (vi) CURRENT APPLICATION DATA:

C--> 30 (A) APPLICATION NUMBER: US/09/690,885

C--> 31 (B) FILING DATE: 18-Oct-2000

32 (C) CLASSIFICATION:

34 (viii) ATTORNEY/AGENT INFORMATION:

35 (A) NAME: WEINER, KAREN S.
 36 (B) REGISTRATION NUMBER: 32,181
 37 (C) REFERENCE DOCKET NUMBER: 1422-0319P

39 (ix) TELECOMMUNICATION INFORMATION:

40 (A) TELEPHONE: 703-271-1000
 41 (B) TELEFAX: 703-271-9050

43 (2) INFORMATION FOR SEQ ID NO: 1:

45 (i) SEQUENCE CHARACTERISTICS:

46 (A) LENGTH: 14 amino acids
 47 (B) TYPE: amino acid
 48 (C) STRANDEDNESS: single
 49 (D) TOPOLOGY: linear

51 (ii) MOLECULE TYPE: protein

53 (ix) FEATURE:

54 (A) LABEL KEY: Modified-site
 55 (B) LOCATION: 7
 56 (D) OTHER INFORMATION: /note= "2-Val or Leu"

61 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

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W--> 63      Met Xaa Pro Leu Asp Lys Asp Leu Gln Lys Ala Lys Ile Ser Ile Thr
64          1          5          15          15
65      Asp Phe Phe Glu Ile Thr Asn Arg Val Leu Asp Tyr Phe Pro Asn Val
66          20          25          30
67      Ile Asn Asn Thr Val Glu Lys Gly Asp Tyr Leu Ile Ser Ser Ser Asn
68          35          40          45
69      Ile Ala Gly Thr Ile Lys Phe Leu Arg Pro Ile Asn Arg Lys Leu Phe
70          50          55          60
71      Ile Gln Glu Lys Lys Val Phe Asn Asp Tyr Phe Gln Lys Leu Ile Ile
72          65          70          75          80
73      Val Phe Glu Asn Ile Arg Asn Lys Lys Thr Val Thr Glu Glu Asp Lys
74          85          90          95
75      Ile Ile Ile Asp Arg Val Ile Tyr Thr Ile Gln Phe Ser Ile Gly Ile
76          100          105          110
77      Gly Leu Asp Leu Met Val Asn Gln Asn Ser Ala Arg Lys His Val Gly
78          115          120          125
79      Asn Arg Phe Glu Glu Leu Ile Arg Val Ile Phe Thr Glu Ile Ser Val
80          130          135          140
81      Ser Asn Lys Arg Thr Val Leu Gln Ile Pro Tyr Glu Thr Asp Glu Gly
82          145          150          155          160
83      Gln Lys Ile Tyr Lys Cys Glu Asn Asp Leu Ile Ile Ser Pro Phe Glu
84          165          170          175
85      Asn Val Glu Ser Thr Asn Lys His Leu Asp Glu Asn Glu Ile Val Val
86          180          185          190
87      Ser Ile Lys Thr Thr Ser Lys Arg Arg Met Gly Lys Met Phe Ile Asp
88          195          200          205
89      Lys Ile Leu Leu Glu Arg Phe Val Lys His Pro Gln Lys Val Ile Gly
90          210          215          220
91      Ile Phe Leu Asn Asp Val Glu Arg Lys Glu Asp Asn Asn Ile Ser Phe
92          225          230          235          240
93      Thr Leu Val Ser Gly Leu Phe Met Val Tyr Thr Lys Phe Leu Thr Thr
94          245          250          255
95      Leu Glu Gly Ile Tyr Tyr Leu Asp Pro Pro Pro Asn Ala Leu Lys Leu
96          260          265          270
97      Pro Tyr Ser Asn His Met Lys Arg Phe Ser Asp Leu Ile Thr Glu Asp
98          275          280          285
99      Leu Glu Lys Leu Phe Ser Ser
100          290          295
101 (2) INFORMATION FOR SEQ ID NO: 1:
102 (i) SEQUENCE CHARACTERISTICS:
103 (A) LENGTH: 885 base pairs
104 (B) TYPE: nucleic acid
105 (C) STRANDEDNESS: double
106 (D) TOPOLOGY: linear
107 (ii) MOLECULE TYPE: DNA (genomic)
108 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
109 ATGGAACAC TCGATAAAGA TTTACAAAAA GCAGAGATT CAATTACTGA TTTTTTCGAA 60
110 ATTACAAATA GAGTTTATGA TTATTTCCCG AATGTAATCA ATAATACAGT TGAAAAAGGA 120
111 GATTATTTAA TATCTCATC AAATATTGCT GGAACAATAA AATTCCTAAG ACCAATCAAT 180

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141 AGAAAGTTAT TTATTCAGCA AAAAAAGTTT TTCAATGATT ATTTTCAAAA ACTGATTATA 240
142 GTTTTTSAAA ATATAAGGAA CAAAAAGACT GTAACAGAGG AAGATAAAAT TATTATTGAT 300
143 AGGGTAATTT ACACAATATA GGAATCTAAT GGAATTGGTT TAGATTTAAT GGTTAATCAA 360
144 AATAGTCTTA GAAAGAAAGT TGGTACAGGA TTGAAAGAA TAAATTAGAGT CATTTTTCAC 420
145 GAAATATACG TATCGAATAA AAGAACTGTA TTACAAATTC CATATGAAAC TGATGAAGGA 480
146 CAGAAAATTT ACAGATGAGA AATTAAGCTC ATTAATTCTC CTTTTCAGAAA TGTAGAACTC 540
147 AAAAAAAGC ATCAATATTA AATTAATTT GTTCTTTCAA TAAAGACAAC ATCAAAAGAT 600
148 AGGATGGGAA AATCTTTTAT AGATAAAATT TTACTTGAAG GGTTCGTAA ACACCTCTCA 660
149 AAAGTTATAG GAATTTTCTT AATTAATGTA CAAAGAAAAG AAGACAACAA TATCAGCTTT 720
150 AACTCTTTT CAGAACTATT TATCTTAT ACTAAATCT TAACTACTCT TGAAGGGATC 780
151 TATTATTATG ATCAAGAGT TATCTTATG AAGCTATCAT ATTCTAATCA TATGAAAGA 840
152 TTTTCAGATT TACTTAAGAA AGAGCTTGAA AAATTAATCT CCTCT
153 (2) INFORMATION FOR SEQ ID NO: 3:
154 (i) SEQUENCE CHARACTERISTICS:
155 (A) LENGTH: 115 base pairs
156 (B) TYPE: nucleic acid
157 (C) STRANDEDNESS: single
158 (D) TOPOLOGY: linear
159 (ii) MOLECULE TYPE: other nucleic acid
160 (A) DESCRIPTION: desc = "synthetic DNA"
161 (iii) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
162 TAGGATATG TCTAAGAA TCAATAGG CAGATAGATC TTTGGTTGTG AATCSCAACC 60
163 AGTGGGCTTA TGGAGAGCT CCAATCAT CACCATCCC TAATGACCTG CAGGCATGCA 120
164 AGCTTGCTG CCGGAGCTC AATGATAG GAGGTTGTG TCGAGGCGAA GGAGTGCCTG 180
165 CATCTTTG TCTTCTCTT CTTCCTCTG GACA
166 (2) INFORMATION FOR SEQ ID NO: 4:
167 (i) SEQUENCE CHARACTERISTICS:
168 (A) LENGTH: 111 base pairs
169 (B) TYPE: nucleic acid
170 (C) STRANDEDNESS: single
171 (D) TOPOLOGY: linear
172 (ii) MOLECULE TYPE: other nucleic acid
173 (A) DESCRIPTION: desc = "synthetic DNA"
174 (iii) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
175 TATGTCCAG AGGAAAAAG CCAAGAGAA AGGATGCGAG GCACTCCTTC GCCTCGAGCA 60
176 CACCTGGCGT AACTAATGAG CTGAGAGCAT GCAAGCTTGC ATGCCTGCAG GTCATTAGGG 120
177 ATGGTAGATG ATGAGCTCT CTGCAATAA GGCCTCTGGT TGGGATTAC AACCAAGAT 180
178 GTATCTGCTT ACATCTCTCT TTATGAACAT ATCCA
179 (2) INFORMATION FOR SEQ ID NO: 5:
180 (i) SEQUENCE CHARACTERISTICS:
181 (A) LENGTH: 18 base pairs
182 (B) TYPE: nucleic acid
183 (C) STRANDEDNESS: single
184 (D) TOPOLOGY: linear
185 (ii) MOLECULE TYPE: other nucleic acid
186 (A) DESCRIPTION: desc = "synthetic DNA"
187 (iii) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
188 AGATCTAGAG CAAACAAAA AACCAAG
189 (2) INFORMATION FOR SEQ ID NO: 6:

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132 (i) SEQUENCE CHARACTERISTICS:
133 (A) LENGTH: 14 base pairs
134 (B) TYPE: nucleic acid
135 (C) STRANDEDNESS: single
136 (D) TOPOLOGY: linear
137 (ii) MOLECULE TYPE: other nucleic acid
138 (A) DESCRIPTION: /desc = "synthetic DNA"
139 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
140 GGTCTAGATG TCA TACGAA AAGC 24
141 (2) INFORMATION FOR SEQ ID NO: 7:
142 (i) SEQUENCE CHARACTERISTICS:
143 (A) LENGTH: 100 base pairs
144 (B) TYPE: nucleic acid
145 (C) STRANDEDNESS: single
146 (D) TOPOLOGY: linear
147 (ii) MOLECULE TYPE: other nucleic acid
148 (A) DESCRIPTION: /desc = "synthetic DNA"
149 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
150 CTCGAGATTT AGTGAACT ATAGAAATG CAATTGTGAG CGGATAACAA TTCCAAGCTT 60
151 CACAGGAAA AGAATATGCT TAACTACT AGTGAATTGG 100
152 (2) INFORMATION FOR SEQ ID NO: 8:
153 (i) SEQUENCE CHARACTERISTICS:
154 (A) LENGTH: 100 base pairs
155 (B) TYPE: nucleic acid
156 (C) STRANDEDNESS: single
157 (D) TOPOLOGY: linear
158 (ii) MOLECULE TYPE: other nucleic acid
159 (A) DESCRIPTION: /desc = "synthetic DNA"
160 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
161 CGAATTCAGT AGTACTTAA GGAATCTCT GTTTCCTGIG AAGCTTGGAA TTGTTATCCG 60
162 CTCACAATTC CGAATCTAT AGGCTACCT AAATCTCGAG 100
163 (2) INFORMATION FOR SEQ ID NO: 9:
164 (i) SEQUENCE CHARACTERISTICS:
165 (A) LENGTH: 10 base pairs
166 (B) TYPE: nucleic acid
167 (C) STRANDEDNESS: single
168 (D) TOPOLOGY: linear
169 (ii) MOLECULE TYPE: other nucleic acid
170 (A) DESCRIPTION: /desc = "synthetic DNA"
171 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
172 AATCCCATGG AACCTACCA ATCTCT 27
173 (2) INFORMATION FOR SEQ ID NO: 10:
174 (i) SEQUENCE CHARACTERISTICS:
175 (A) LENGTH: 10 base pairs
176 (B) TYPE: nucleic acid
177 (C) STRANDEDNESS: single
178 (D) TOPOLOGY: linear
179 (ii) MOLECULE TYPE: other nucleic acid
180 (A) DESCRIPTION: /desc = "synthetic DNA"

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321      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
322 CCGGCCCATGG TATTCTTGA ACCA-IAC-
323      (2) INFORMATION FOR SEQ ID NO: 11:
324      (i) SEQUENCE CHARACTERISTICS:
325          (A) LENGTH: 16 base pairs
326          (B) TYPE: nucleic acid
327          (C) STRANDEDNESS: single
328          (D) TOPOLOGY: linear
329      (ii) MOLECULE TYPE: other nucleic acid
330          (A) DESCRIPTION: desc = "synthetic DNA"
331      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
332 TAACTCGAAT CCATGGTTC TCATCG
333      (2) INFORMATION FOR SEQ ID NO: 12:
334      (i) SEQUENCE CHARACTERISTICS:
335          (A) LENGTH: 19 base pairs
336          (B) TYPE: nucleic acid
337          (C) STRANDEDNESS: single
338          (D) TOPOLOGY: linear
339      (ii) MOLECULE TYPE: other nucleic acid
340          (A) DESCRIPTION: desc = "synthetic DNA"
341      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
342 TACTCAGTAG CCATGGCTTC CATAGACCG
343      (2) INFORMATION FOR SEQ ID NO: 13:
344      (i) SEQUENCE CHARACTERISTICS:
345          (A) LENGTH: 148 amino acids
346          (B) TYPE: amino acid
347          (C) STRANDEDNESS: single
348          (D) TOPOLOGY: linear
349      (ii) MOLECULE TYPE: peptide
350      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:
351 Met Asn Glu Ile Ala Phe Asp Asn Tyr Ser Tyr Ile Pro Lys Leu Lys
352      1           5           10           15
353 Leu Tyr Ser Glu Ile Glu Leu Lys Pro Phe Phe Ile Ser Lys Asn Gly
354      20          25          30
355 Ser Leu Phe Ala Val Asp Ala Ile Asp Phe Leu Arg Lys Leu Glu Ser
356      35          40          45
357 Asn Ser Val Asp Leu Ile Phe Ala Asp Pro Pro Tyr Asn Ile Lys Lys
358      50          55          60
359 Ala Glu Trp Asp Ile Phe Ser Ser Glu Asn Glu Tyr Leu Glu Trp Ser
360      65          70          75          80
361 Lys Glu Trp Ile Met Glu Ala His Arg Val Leu Lys Asp Asn Gly Ser
362      85          90          95
363 Leu Tyr Val Cys Gly Phe Ser Glu Ile Leu Ala Asp Ile Lys Phe Ile
364      100         105         110
365 Thr Ser Lys Tyr Phe His Ser Cys Lys Trp Leu Ile Trp Phe Tyr Arg
366      115         120         125
367 Asn Lys Ala Asn Leu Gly Lys Asp Trp Gly Arg Ser His Glu Ser Ile
368      130         135         140
369 Leu Leu Leu Arg Lys Ser Lys Asn Phe Ile Phe Asn Ile Asp Glu Ala

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